

kaalu

an abstract strategy game about balance, by Jacob Peck

objective

manipulate the piles such that at least four of them have a primacy of your color

equipment

sixty-three stones:

- twenty-one white
- twenty-one black
- twenty-one grey (neutral)

setup

- each player chooses a color, either white or black, and takes all stones of that color in front of them
- seven piles are formed in the playing area, each consisting of three neutral stones
- each player adds two of their own stones to each pile, forming seven piles of seven stones each
- the remaining seven stones of each player's color are kept in front of them forming their stock

play

starting with black, each player alternates taking a turn, using one of the following options:

- place one stone from their stock (if available) into any pile
- move any number of stones (neutral and/or their own color) from one pile to another

after any move, the following constraints must be maintained:

- each pile contains at least seven stones
- each pile contains at least one stone of each color
- no pile has the same number of stones of all three colors (no three-way ties)
- the move was not an exact reversal of your opponent's immediate previous move -- if they moved only neutral stones from one pile to another, you are not allowed to exactly undo that move
- the move changed the contents of both piles involved, and didn't simply 'swap' two piles – an example move of two neutral stones from a pile with composition 3 black/6 neutral/2 white to a pile with composition 3 black/4 neutral/3 white would be invalid, as the two piles have simply swapped compositions, rather than changing

any moves which do not maintain these constraints is illegal and must be taken back and a valid move played instead

primacy

each pile has exactly one primacy color, determined as follows:

- if there is a single majority color in the pile, the pile has that color primacy
- if there is a tie for majority color in that pile, the pile has the primacy color of the un-tied color

at game start, all seven piles have neutral primacy

ending the game

immediately after any move which creates at least four piles with primacy in a single player color, the game ends in victory for that player (it is possible and legal for a player to make a move which loses them the game)

notation

kaalu is homomorphic, meaning that since the seven piles aren't spatially defined, the notation of any game will have a single unique, 'normal' form

using this property, notation for kaalu is pretty easy, and similar to chess notation

moves are notated in a two column format, where the first column is black's move, and the second is white's

piles are indicated by a letter starting with 'a' and proceeding towards 'g' from when they're first referenced – the first time a new pile is used, allocate the next available letter to it

placement of a stone from the stock to a pile is notated by the letter allocated to that pile

moving a group of stones is indicated by the letter of the source pile, followed by a numeral indication of the amount of stones matching the player's color being moved, followed by a forward slash, then a numeral indication of the amount of neutral stones being moved, followed finally by the letter of the destination pile, such that a2/0c on white's turn means "move two white stones and zero neutral stones from pile a to pile c"

win or loss is indicated by a '#' or '!' appended to the end of the current move respectively

example

1. a b
2. a c
3. a1/1c b
- ...